

## RUN-TIME PARALLELIZATION OF LOOPS IN COMPUTER PROGRAMS

### ABSTRACT

- 5 Parallelization of loops is performed for loops having indirect loop index variables and  
embedded conditional statements in the loop body. Loops having any finite number of  
array variables in the loop body, and any finite number of indirect loop index variables  
can be parallelized. There are two particular limitations of the described techniques: (i)  
that there are no cross-iteration dependencies in the loop other than through the indirect  
10 loop index variables; and (ii) that the loop index variables (either direct or indirect) are  
not redefined in the loop body.